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In Response

Comments On Marr's Determinism

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In his article "Determinism" Jackson Marr argues that behavior exhibits spontaneity. What is the behavioral evidence for this view? It is, and could only be, lack of evidence: cases (such as the number of responses during an FI interval) in which behavior changes but we are unable to specify the controlling variables.

Consider the following parallel with concept formation experiments. A pigeon is shown slides, and given food if responses occur in the presence of, say, a tree, but not otherwise. A behavioral scientist is shown an animal behaving, and given, say, grant money if he correctly specifies whether or not there are controlling variables. Is there a correct answer? All that can be said, I suggest, is that if controlling variables are found, then they exist: if they are not found, unless an exhaustive search of relevant variables has been performed, no answer is possible.[1] In the cases which Marr identifies as exhibiting spontaneity, we may ask: Would a greater knowledge of an organism's history tell us more? Would knowing more about the current environment tell us more? Would recording from single neurons, if feasible, tell us anything more? Would more powerful computers, if available, tell us more? Would the recording of the locations of all parts of an animal's body over time tell us more? To say that spontaneity is present in behavior is equivalent to making the inference that none of these operations would allow us to make better predictions regarding behavior. Where do we get the license to make such an inference?

We may identify two reasons why the word "spontaneity" might be emitted by a behavioral scientist. The first is identical with variables with Skinner has identified as maintaining everyday explanations of behavior: further inquiry is halted.

The second reason, I would guess, derives from a disinclination to accept Laplace's conjecture that, were we to know the state of the universe at any one point in time, we could in principle know all past and future states of the universe, including our own actions. In other words, if spontaneity is in fact real, then the truth lies somewhere between free-will and hard determinism. Given that hard deteminism elicits revulsion while free-will seems absurd, a compromise may appear to make the most sense.

[1] In a letter to Skinner, Percy Bridgman says science need not assume the universe is lawful, but need merely exploit those cases of lawfulness already found. (March 20, 1951. The letter will be among Skinner's material in the Harvard Archives.)

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